

The author will be grateful to any reader who will call his attention to an error in this book, or who will suggest new problems, changes in the text, or additions thereto. Careful consideration will be given to such suggestions and criticisms, as it is the author's desire to make his book as nearly perfect as possible. Communications of this nature should be addressed to Dr. J. G. Coffin, 17 Elm St., Garden City, N. Y.

## VECTOR ANALYSIS

AN INTRODUCTION
TO
VECTOR-METHODS
AND THEIR VARIOUS APPLICATIONS
TO

## PHYSICS AND MATHEMATICS

BY

JOSEPH GEORGE COFFIN, B.S., Ph.D.

LATE ASSOCIATE PROFESSOR OF PHYSICS AT THE COLLEGE OF THE
CITY OF NEW YORK
RESEARCH ENGINEER IN AERODYNAMICS, KAISER CARGO, INC., FLEETWINGS DIVISION

SECOND EDITION

NEW YORK

JOHN WILEY & SONS, INC.

LONDON: CHAPMAN & HALL, LIMITED

1909 RENEWED 1936,

BY

J. G. COFFIN

1911 RENEWED 1938,

J. G. COFFIN

SECOND EDITION

Printed in U.S. A.